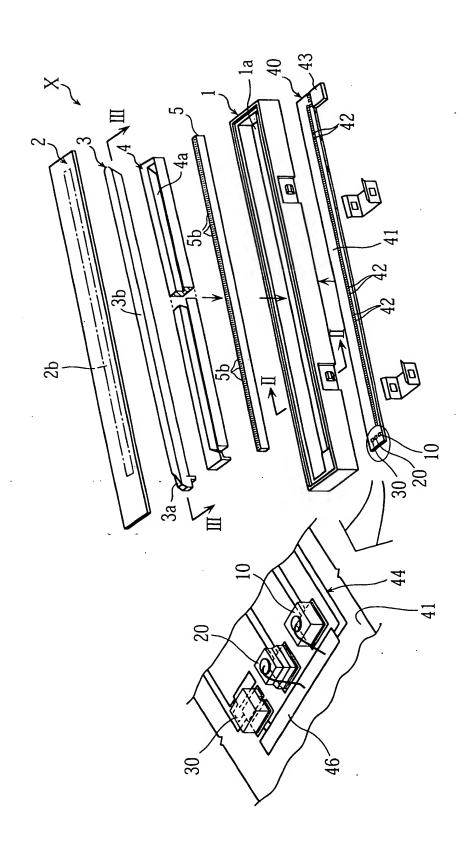
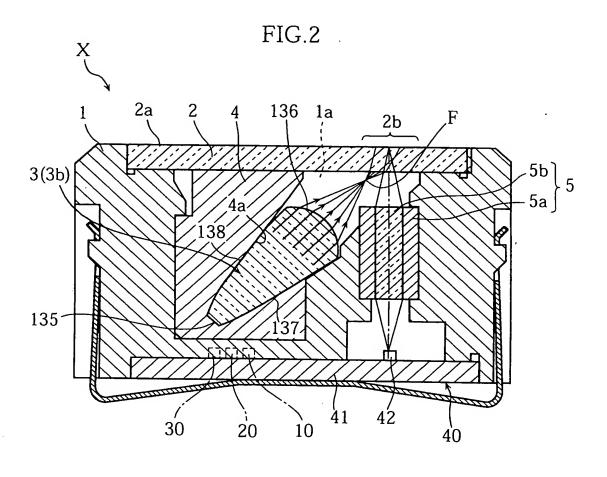
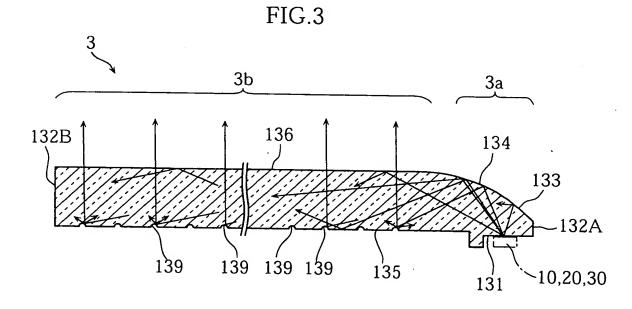
Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet I of 10

10/518225



Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 2 of 10





10/518225



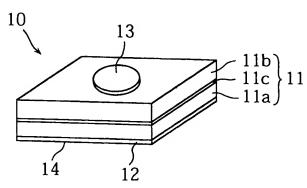


FIG.4B

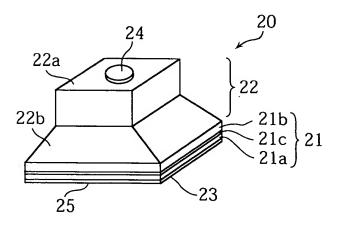
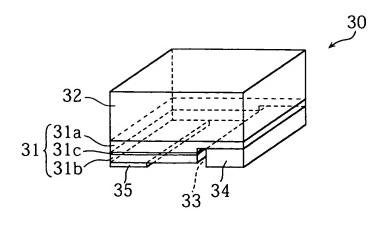


FIG.4C

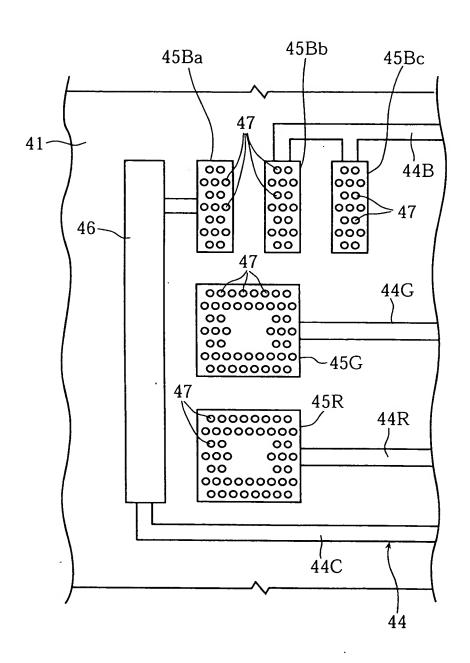


3/10

Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 4 of 10

Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 4 of 10

FIG.5



Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME

Attorney Name: Douglas P. Mueller Phone No.: 612.371.5237 Sheet 5 of 10

10/518225

FIG.6

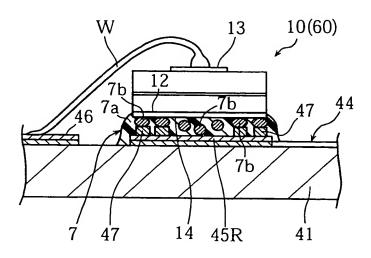
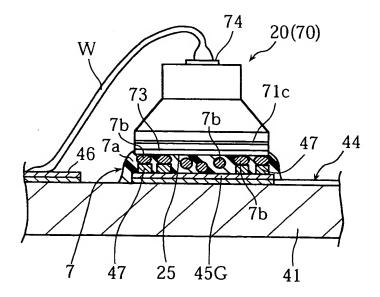


FIG.7



Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 6 of 10

FIG.8A

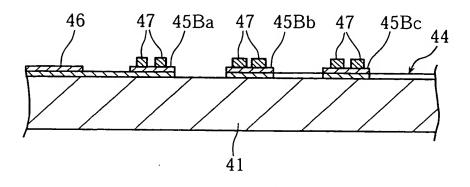


FIG.8B

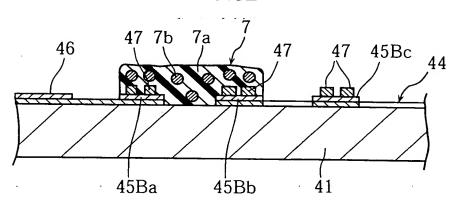
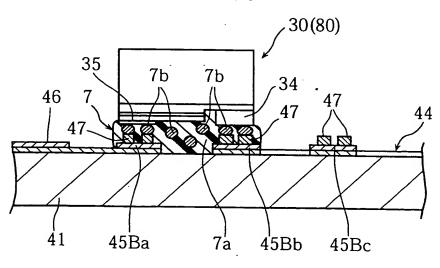


FIG.8C



Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 7 of 10

FIG.9

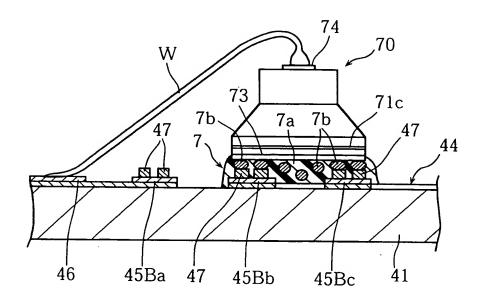


FIG.10A PRIOR ART

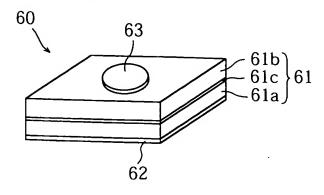


FIG.10B - PRIOR ART

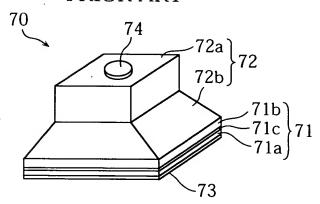


FIG.10C PRIOR ART

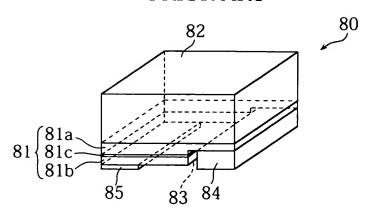
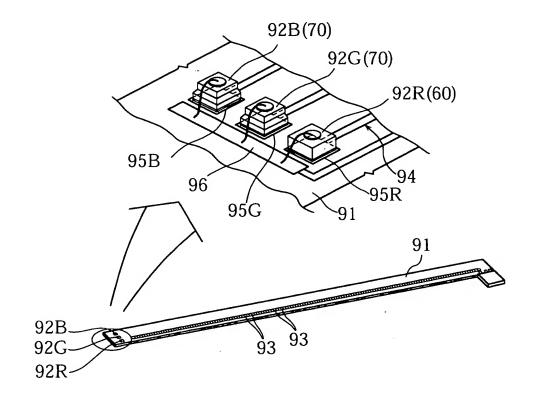


FIG.11 PRIOR ART



Inventor: YOSHIKAWA et al.
Docket No.: 10921.263USWO
Title: LED CHIP MOUNTING STRUCTURE, AND IMAGE READING DEVICE
EMPLOYING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 10 of 10

s. 1935

·: , •

10/518225

FIG.12A PRIOR ART

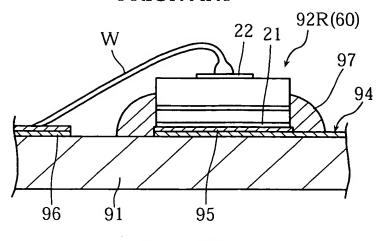


FIG.12B PRIOR ART

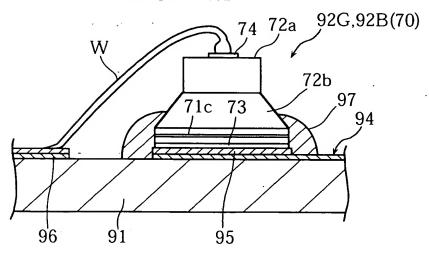


FIG.12C PRIOR ART 80 85 81c 98 96' 91' 84 95'

10/10